

Customer No.: 31561
Application No.: 10/065,091
Docket No.: 5486-US-PA

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

Examiner: TIMOTHY RUDE

Group Art Unit: 2871

In re PATENT APPLICATION of

Applicants : Luo et al.

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Serial No. : 10/065,091

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Filed : September 17, 2002

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For : LIQUID CRYSTAL DISPLAY
STRUCTURE

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) Attorney Docket: 5486-US-PA

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REPLY BRIEF TO EXAMINER'S ANSWER

United States Patent and Trademark Office
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Dear Sir:

This is in reply to the Examiner's Answer, which was issued September 21, 2009.

Response to Examiner's Answer

The rejections set forth in the Examiner's Answer repeat the prior positions taken by the Examiner in the FINAL Office Action. After that, beginning on page 12, the Examiner's Answer sets forth additional responsive comments to the arguments set forth in applicants' appeal brief. The discussion does not change the basis of the rejections set forth earlier in the previous responses but merely elaborates on the rejections.

Applicants continue to disagree with the Examiner's positions as to all claim rejections under appeal. Applicants' Appeal Brief sets forth, form a substantive basis, the reasons why the cited art does not properly teach the features that are being claimed. For claims or any argument made by the Examiner not specifically treated herein, applicants rely on the points made in the applicants' Appeal Brief and do not conceded that the Examiner is correct.

The applicants respectfully submit that the meaning of terms and the overall idea of the invention are equally important, especially when the meaning of terms has not been properly construed. In the instant case, the color filter layer itself, **not the "composite planar color filter layer structure"** as termed by the Examiner in Page 14 of the Answer, has a planar top surface, while the bottom surface of the color filter layer is non-planar and has corrugation thereon to fully cover the conformal reflective layer. As acknowledged by the Examiner in page 14 of the Answer, the **"composite planar color filter layer structure" includes the overcoat film 14 filling the regions between colored regions 13 (color filter layers) and the colored regions.** A fair reading of

applicants' color filter layer clearly excludes additional elements, such as the overcoat layer.

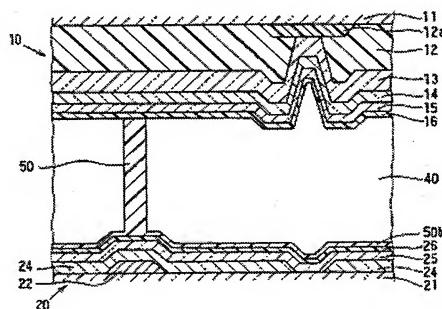
In Page 13 of the Examiner's Answer, the Examiner states that "planar color filter layers are most often composite layers, at least to include the three primary colors (e.g. red, green, and blue), and frequently to include clear regions, diffusive regions, black regions, and even white regions within and between sub-pixels,". The Examiner also states that "[R]ed, green, and blue color filters are mainly cured polymer resin as are the other clear, black, and white (if any) composite parts of the planar color filter layer; the difference lies in pigmentation or lack thereof." The Examiner further states in Page 15 of the Answer that "Appellant does not claim and does not disclose any specific colors, so Appellant is relying upon ordinary skill in the art for enablement of the structural specifics of the planar color filter layer, e.g. red, green, blue, black, clear, etc....".

The applicants recognize that a color filter layer could be one of the three primary colors. The applicants do note, however, that a color filter layer does not include the overcoat film thereon, which is for the purpose of planarizing the corrugation of the color filter layer and other layers. As well known by one skilled in the art, a color filter layer and an overcoat layer are separate elements providing different functions. A color filter layer has the function of filtering a white light beam into a colored light beam, whereas an overcoat layer and a black matrix do not have the function of filtering white light beam. Hence, a skilled artesian would not construe a color filter layer as a combination of a color filter layer and an overcoat layer and/or black matrix together.

For example, in Wen et al. of the U.S. Patent 6, 110,625, Wen et al. states that a

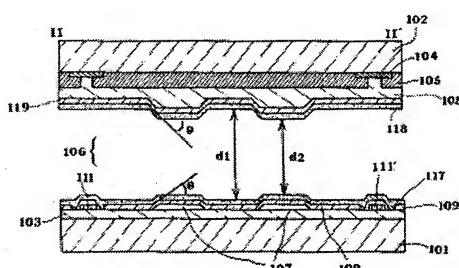
color filter comprises three main components, **a black-hued matrix, a color filter layer and an overcoat layer.** Also for example in Inata et al. of the U.S. Patent 5,861,932, Inata teaches **color filter layer 12, over-coat layer 13, transparent electrodes 14, and insulating layer 15** are formed on transparent substrate of first electrode panel 10 in this order.

FIG. 2



Further for example in Ahn et al. of the U.S. Patent 6,061,106, Ahn teaches that **an overcoat layer 108 having a patterned surface is formed on the color filter layer 105 and the black matrix 104.**

FIG. 4



Hence, contrary to the Examiner's assertion in Page 15 of the Answer that "color filter layer" refers, in the art, to everything that is on the same layer level as the discrete

colored regions of (usually) red, green, and blue which includes the overcoat film that fills the regions between neighboring colored region 13, one skilled in the art, as shown in the patents above and more, generally refers a color filter layer as the color filter layer itself, in absent of other films or layers being formed on or around it. In fact, the Examiner also refers to, in Page 14 in the Answer, the colored regions 13 (color filter layer) and the overcoat film 14 filling the regions between the colored regions as “the composite planar color filter layer structure”, rather than the color filter itself. Moreover, in primary reference Tanaka, Tanaka teaches the color filters 13 for performing color display and the overcoat film 14 for planarizing the corrugation due to the color filters 13, wherein the color filters 13 do not imply the color filters and the overcoat film thereon.

In an aspect of the invention and as recited in claim 56, the first transparent conductive layer is **formed conformably and directly on the planar color filter layer**. Alternatively speaking, there is no overcoat layer being formed between the transparent conductive layer and the color filter layer of the invention. In summary, the planar color filter layer of the invention provides the effects of coloring light and color correction, and concurrently the planarization of the bumpy reflective layer. Hence, the transparent conductive layer can be formed **directly on** the planar color filter layer without the assistance of an overcoat film forming therebetween. Hence, according to the reasons above and the reasons previously set forth before the Office, applicants submit that the teachings of Tanada in view of Nakai, and Tanada in view of Ogawa and Nakai do not render claims 56 and 67 obvious and unpatentable.

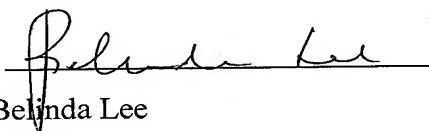
CONCLUSION

For at least the reasons set forth in the Appeal Brief filed on July 2, 2009, as supplemented by the foregoing discussion, it is respectfully urged that the final rejection on the merits be reversed and a Notice of Allowance issued form claims 56-59 and 62-67.

Respectfully submitted,

Date :

Nov. 20, 2009


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